

A NEW STATUS FOR AN EASTERN NORTH AMERICAN SCIRPUS

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Among plants that Fernald originally described from southeastern Virginia were those he named *Scirpus atrovirens* var. *flaccidifolius*. Although he pointed out most of their unique characteristics in his original description (1938), other authors (Beetle, 1947; Gleason, 1952) have not given these plants any taxonomic recognition. They resemble plants of *S. atrovirens* Willd., *S. hattorianus* Mak.,² and *S. georgianus* Harp., but differ consistently from them in several characteristics and are recognized here as: ***Scirpus flaccidifolius* (Fern.) Schuyler, stat. et comb. nov.**

Scirpus atrovirens var. *flaccidifolius* Fern., *Rhodora* 40: 396. 1938. (*Fernald & Long* 8109, GH; ISOTYPES, PH, US).

Scirpus flaccidifolius has lax and reclining mature culms with inflorescences that lop over in contrast to the nearly upright mature culms of *S. atrovirens*, *S. hattorianus*, and *S. georgianus* (collectively referred to as related species in this discussion). The primary inflorescence rays become relatively long at maturity (about 30 cm in *Fernald & Long* 10544, GH) in comparison with those of related species. The lower leaf sheaths and blades are nearly smooth or somewhat nodulose-septate, but not conspicuously so as is usually the case with *S. atrovirens*. The small glomerules of spikelets (fig. 1) rarely contain more than 15 spikelets, and individual spikelets (fig. 2) are relatively wide (mostly 2-3 mm). Related species frequently have more than 15 spikelets per glomerule and consistently narrower spikelets.

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²The distinctions of this species from *S. atrovirens* and *S. georgianus* were recently pointed out by myself (1967).

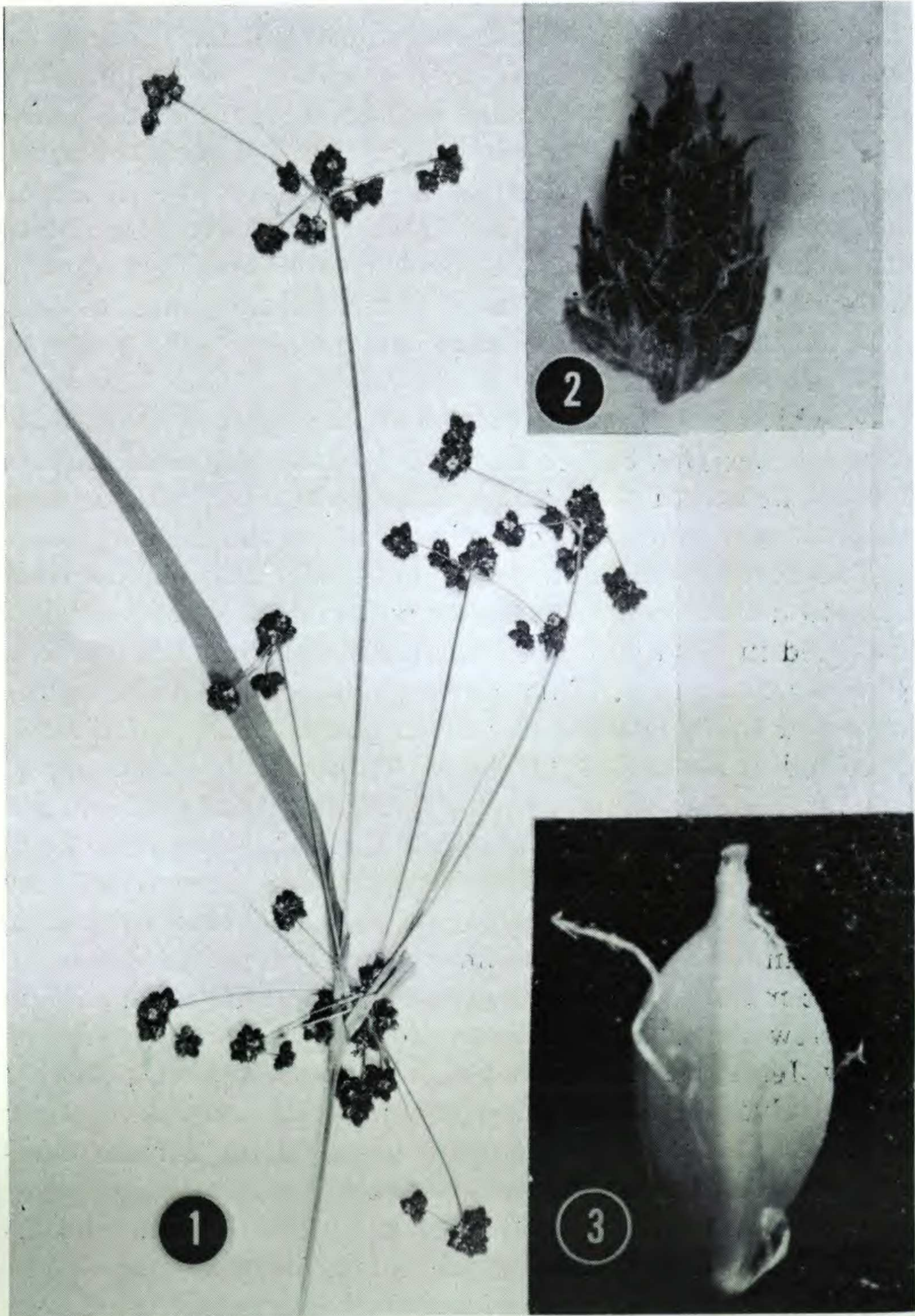


Figure 1. Inflorescence of *S. flaccidifolius* (Fernald & Long 10141, PH).

Figure 2. Spikelet of *S. flaccidifolius* (Fernald & Long 10140, GH).

Figure 3. Achene and bristles of *S. flaccidifolius* (Fernald & Long 10140, GH).

The blackish scale color is similar to the scale color of *S. hattorianus* but differs from the usually brownish scale color of *S. atrovirens* and *S. georgianus*. Many of the scales are slightly mucronate, particularly those from lower portions of the spikelets, whereas those of related species are all mucronate. The bristles (fig. 3) are frequently longer than the achenes, resembling *S. atrovirens* in this respect, but differing from *S. hattorianus* which usually has bristles shorter than to about equaling the achenes. The presence of 6 bristles distinguishes *S. flaccidifolius* from *S. georgianus*, which either lacks bristles or has up to 3 short ones. The achenes (fig. 3) are mostly 1-1.2 mm long and compare closely in length with those of *S. atrovirens* but are generally longer than those of *S. hattorianus* and *S. georgianus*.

The chromosome number of $n = 27$ was comparatively easy to determine from meiotic material of *S. flaccidifolius* collected in Northampton Co., North Carolina (*Schuyler & Wilkens 3858*, PH). This number differs from the 28 units observed in meiotic figures from plants of *S. hattorianus* collected in Berks Co. (*Wilkens 10270*, PH) and Northampton Co., Pennsylvania (my no. *3735*, PH), and Cattaraugus Co., New York (my no. *3443*, PH³). It has been difficult to obtain results from meiotic material of *S. atrovirens* (my experience being comparable to that reported by Hicks, 1928) and no definite number can be reported here. In meiotic material of *S. georgianus*, three different numbers, 25 (New Jersey: Burlington Co., my no. *3863*, PH), 26 (New Jersey: Burlington Co., my no. *3846*, PH), and 27 (Pennsylvania: Lehigh Co., my no. *3852*, PH), have been observed and obviously indicate the need for further cytological investigation of this species.

While collecting in southeastern Virginia and northeastern North Carolina during the spring of 1966, Hans Wilkens and I found *Scirpus flaccidifolius* growing in or near previously reported localities (Fernald, 1938 & 1940), and also found it at other places near Fontaine Creek farther

³Although previously cited as *S. atrovirens* (Schuyler, 1964), subsequent study has shown that the plant is *S. hattorianus*.

downstream from where it had been collected previously. Although all of the localities we found were in the vicinity of large streams (e.g., Nottoway River, Meherrin River, and Fontaine Creek), none were in the low areas close to the margins of these streams; instead they were in somewhat higher areas, though still in the wet, swampy bottomlands associated with these streams. We further noticed that *S. flaccidifolius* grew abundantly where there was evidence of human disturbance such as clearings for power lines near the Nottoway River and roadside clearings in bottomlands near Fontaine Creek. However it was also observed growing in a more natural area on the east side of the Meherrin River near Haley's Bridge along a small meandering stream through bottomland woods south of highway no. 730. It is likely that further collecting will extend the range of *S. flaccidifolius*, but at the present time only the following collections are known:

VIRGINIA: SUSSEX CO. SW of Homeville, bottomland swamp, Nottoway River, *Fernald & Long 10141* (GH, PH); E of the Nottoway River, in wet clearing for power lines along highway no. 40, *Schuyler 3855* (PH). SOUTHAMPTON CO.: near Haley's Bridge, wooded alluvial bottomland of Meherrin River, *Fernald & Long 8109* (GH, PH, US). GREENSVILLE CO.: SE of Taylor's Millpond, wooded bottomland of Fontaine Creek, *Fernald & Long 10140, 10544* (GH, PH); SE of Taylor's Millpond, along road near bridge over Fontaine Creek, *Schuyler & Wilkens 3859* (PH). NORTH CAROLINA: NORTHAMPTON CO.: 1.7 mi WNW of Margarettsville, along road S of Fontaine Creek, *Schuyler & Wilkens 3858* (PH); Rich Square, along stream, *Blomquist* (PH).

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